

Fig. 8. Tarsus of *Phoxichilidium coccineum*.

Fig. 9. Profile of *Pallene circularis*.

Fig. 10. Tarsus.

Fig. 11. Profile of *Pasithoe vesiculosa*.

Fig. 12. Tarsal and tibial joints of *Pasithoe*.

Fig. 13. Abdominal surface of rostrum and first thoracic segment of *Pasithoe*.

Fig. 14. Profile of *Nymphon Johnstoni*.

Fig. 15. Abdominal surface of rostrum and first thoracic segment of *Nymphon Johnstoni*.

Fig. 16. Tarsal joints and part of last tibial joint.

Fig. 17. Profile of *Nymphon spinosum*.

Fig. 18. Tarsal joints with portion of last tibial of *Nymphon spinosum*.

Fig. 19. Profile of *Nymphon pellucidum*.

Fig. 20. Abdominal surface of first thoracic segment with oviferous leg of one side.

Fig. 21. Profile of *Nymphon similis*.

Fig. 22. Abdominal surface with oviferous leg of one side.

Fig. 23. Tarsal joints with small portion of tibial joint.

Fig. 24. Abdominal surface of first thoracic segment with oviferous leg of one side in *Nymphon minutum*.

Fig. 25. Tarsal joints of *Nymphon minutum* with small portion of last tibial joint.

II.—On some British species of the genus *Ænanthe*. By  
JOHN BALL, B.A., M.R.I.A. &c.\*

THE paper by Mr. Coleman (Annals, xiii. p. 188) has induced me to endeavour to throw light upon some of the doubtful species of *Ænanthe*. The *Æ. fluviatilis*, Colem., I gathered six years since near Cambridge, and also near Ely, but never having found a flowering specimen was at a loss how to denominate it. It certainly has much the appearance of a distinct species, but I do not think the characters assigned very satisfactory. I find the fruit of the ordinary *Æ. Phellandrium* to vary from elliptical to ovate, assuming quite the form figured in Mr. Coleman's plate; the upper leaf in the figure is also seen in *Æ. Phellandrium*.

I proceed to describe what I believe to be the true *Æ. pimpinelloides* of Linnæus and the continental botanists. This appears to be rare in Britain, as I have only seen specimens, wanting fruit, gathered in a dry meadow upon red marl near Forthampton, Gloucestershire, by Mr. Edwin Lees. I give the description in Latin.

*Ænanthe pimpinelloides*.—Radix e fibris plurimis lignosis fasciculatis inferne in napulos parvulos ovoideos incrassatis. Caulis teres, striatus, sulcatus, factus, sesqui-tripedalis, alterne ramosus. Folia radicalia bipinnata: pinnulis inciso-dentatis trifidisve, omnibus acutis, petiolo sesqui-bipollicari basi in vaginam expanso; caulina infra pedunculum imum conformia pinnulis angustioribus; se-

\* Read before the Botanical Society of Edinburgh, 11th April 1844.

quantia pedunculos elongatos rigidos amplectentia vagina petiolari successive breviori, pinnata pinnulis linearibus tripartitis simplicibusve, inferioribus valde elongatis; suprema caulis et pedunculorum linearia elongata. *Pinnulæ foliorum omnium margine cartilagineo minute denticulato in mucronem producto.* Umbellæ solitariæ, terminales, 6—15-radiatæ, convexæ; accessorïæ primarium æquantés aut superantes. Involucrum universale nunc nullum, nunc 1—6-phyllum; foliis setaceis, inæqualibus, umbella multo brevioribus. Umbellulæ multifloræ, densæ; floribus externis sæpe sterilibus longius pedicellatis, internis subsessilibus. Involucella polyphylla; foliolis lineari-lanceolatis, acuminatis, inæqualibus, pedicellos florigeros exteriores subæquantibus. Petala inæqualia, præsertim florum sterilium, lata, obcordata, ad medium fissa, alba nervis coloratis: segmenta marginis calycini liberi lato-lanceolata, inæqualia, dup̄ exteriora longiora. Diachenium.....

An *Cenanthe* gathered in the island of Ischia, which seems to be the *C. pimpinelloides* of Bertoloni (Fl. Ital. iii. 236), differs in having the pinnules of all the stem-leaves linear, the sheaths longer, and sometimes wants the sterile external florets. The diachenium is of nearly equal thickness throughout, crowned with the erect persistent calyx, and somewhat longer than the stiff, slightly diverging styles; the very short adpressed pedicels forming a callous ring at the base. I have this form also from near Pisa.

What principally distinguishes this plant is the mucronate pinnules of all the leaves; besides which it differs from *C. Lachenalii* in the fruit and the involucella, and from *C. silaifolia* and *C. peucedanifolia* in many obvious points. *C. Jordani*, Ten., which I have gathered near Pæstum, differs mainly by the very crowded umbel, and the longer sheathing petioles. I do not find all the leaves bipinnate, as Bertoloni describes them, the upper-stem leaves being pinnate with very long linear segments, and ultimately simple linear elongate; my plant, so far, looking like an intermediate variety.

I have no doubt as to the identity of the Gloucestershire plant with the foreign ones above mentioned, and the Toulouse specimen referred to by Mr. Babington (Man. Br. Bot. 130) seems to agree with my description, so that *C. pimpinelloides* must resume its place in the flora of Britain.

I next come to the *C. peucedanifolia* of Smith, Hooker, Babington, and all British botanists, but not of Pollich, or the principal foreign writers. I agree with Bertoloni in confirming the opinion of Bieberstein (Fl. Tauro-Caucas. iii. 232), that his *C. silaifolia* is the *C. peucedanifolia* of Smith (Eng. Bot. t. 348). I found this plant in a salt-marsh near Portmarnoch, county Dublin, Ireland, and have received it from the banks of the

Severn at Deerhurst, Gloucestershire, where it was gathered by Mr. E. Lees. The following description will establish the identity:—

*Ceanothe silaifolia*.—Radix e napulis oblongis clavatis fasciculatis in fibrillam desinentibus. Caulis teres, striatus, fistulosus, alterne ramosus, 1—2-pedalis. Folia radicalia . . . . ; cætera omnia subconformia, bipinnata; foliolis fere æqualibus; pinnulis acutis, integerrimis, inferiorum lanceolatis, superiorum linearibus; folia suprema pinnata. Petioli inferiores elongati basi vaginantes, superiores omnes breves 1—2-pollicares. Umbellæ solitariæ, 5—8-radiatæ, primaria (in speciminibus nostris) subsessilis, accessorie ramorum terminales longiuscule pedunculatæ. Involucrum universale nullum seu foliolis 1—7, setaceis, umbellam sub mediam longis. Umbellulæ multifloræ, densæ, floribus externis longius pedicellatis, sæpe (semper?) sterilibus; internis subsessilibus. Involucella e foliolis plurimis, latiusculis, albo-marginatis, nonnullis basi conatis, umbellula florifera exigua paulo brevior. Marginis calycini liberi segmenta præ corollam magna, lanceolata, tria exteriora longiora. Petala minuta, parum inæqualia, late obcordata, ad tertium fissa. Styli divergentes. Stylopodium majusculum, conicum. Diachenium (haud omnino maturum) exiguum, clavatum (ad basin ut videtur haud incrassatum), inferne quidquam contractum.

Comparing the description of Bieberstein, referred to above, with those of Koch and Bertoloni, there can be but little doubt that this plant is the *C. silaifolia* of those writers. The two latter authors differ in one respect, Koch describing the fruit as cylindrical and “basi callo cinctis,” as noticed by Babington; it is probable however that the same plant is intended by both these distinguished writers. This species, which differs from all its allies by the similarity of structure in all the leaves and the shorter and uniform leaflets, is further distinguished from the true *C. peucedanifolia* by its very much smaller petals and fruit, and from *C. Lachenalii* by the structure of the root.

By far the most common species of this group is the *C. Lachenalii* of Babington, and apparently the plant of Gmelin, Koch, DeCandolle and Bertoloni. I may premise that there is some difference in the various descriptions of the root, upon which, owing to the general neglect of this portion of most plants amongst British botanists, my specimens do not allow me to give an opinion. The exact Bertoloni says, “fibris inferne incrassatis in napulos cylindraceo-clavatis fibrilla terminatis,” whilst Koch and Babington seem to intend fibres thickened and tuberous from the top. I have specimens of this plant from several parts of England, from the coast of Galloway and from near Dunbar in Scotland. I do not find the difference which Mr. Babington



suspects between the fresh and salt water forms\*. The following is the description:—

*Ænanthe Lachenalii*.—Radix... Caulis erectus, striatus, fistulosus seu subfarctus, alternè ramosus, 1—3-pedalis. Folia radicalia pinnata, pinnis pinnatifidis trifidisve inæqualibus, segmentis obverse lanceolatis obtusis venosis, petioli mediocris longitudinis basi vaginante; caulina pinnata longe petiolata pinnis trifidis segmentis linearibus acutis valde elongatis; successiva minora, demum simplicia, segmentis semper inæqualia. Umbellæ solitariæ, terminales, 5—15-radiatæ, longe pedunculatæ. Involucrum universale 0, seu 1—6-phyllum, foliis linearibus acutis, umbella multo brevioribus. Umbellulæ multifloræ, floribus externis sterilibus longius pedicelatis, internis subsessilibus in fructu fastigiatæ. Involucella umbellula brevior e foliis lanceolatis margine pallentibus nonnullis basi connatis. Petala radiantia quam in *Æ. silaifolia* paululum majora profundius obcordata. Styli diachenio breviores, parum divergentes. Stylopodium majusculum, conicum. Diachenium basi non calloso semper angustatum, variat tamen magnitudine et forma; interdum majus usque ad summum dilatatum quasi obconicum, interdum (præ siccitate ut videtur) minus, sub calyce (diviso in segmenta erecta inæqualia) constrictum.

In foreign specimens from the Bolognese Apennines, the fruit is more exactly as described by Koch. The form of the lower leaves is very constant in all the forms of this otherwise variable species. The variation in the form of the fruit is very singular, but with the specimens before me I cannot refuse to believe it.

A word as to the value of the characters of these species. The position and size of the tubers of the root are, I suspect, of doubtful constancy; observation must determine their importance. The general disposition and proportions of the leaves are probably much to be depended upon here and throughout the whole order. The hollowness or solidity of the stem depends, I believe, almost wholly on the place of growth, and is of no moment. The involucre is most variable. The petals vary somewhat in size but scarcely in form, those of the outer sterile floret being always compared with each other. The form of the fruit seems not so constant as might be expected. The presence or absence of the incrassated summit of the pedicel I have never seen to vary.

I need scarcely add, that the above descriptions are taken exclusively from the British specimens referred to.

Dublin, March 10, 1844.

\* No difference exists between them.—C. C. Babington.